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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/721,053	11/22/2000	Steve Epstein	81183	2297

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EXAMINER
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NORRIS, TREMAYNE M

ART UNIT	PAPER NUMBER
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2137

DATE MAILED: 04/22/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/721,053

Applicant(s)

EPSTEIN ET AL.

Examiner

Tremayne M. Norris

Art Unit

2137

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 22 November 2000.  
2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.  
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.  
6) ☒ Claim(s) 1-6, 8-10 and 12-18 is/are rejected.  
7) ☒ Claim(s) 7 and 11 is/are objected to.  
8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☒ The specification is objected to by the Examiner.  
10) ☒ The drawing(s) filed on 22 November 2000 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☒ All b) ☐ Some \* c) ☐ None of:  
1. ☒ Certified copies of the priority documents have been received.  
2. ☒ Certified copies of the priority documents have been received in Application No. 133753.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)  
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)  
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 3.6.7.  
4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_  
5) ☐ Notice of Informal Patent Application (PTO-152)  
6) ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### *Specification*

1. The disclosure is objected to because of the following informalities: On page 13 line 19, the word "nay" should be changed to "may".

Appropriate correction is required.

### *Claim Rejections - 35 USC § 102*

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1,2,4,5,9,10,12-18 rejected under 35 U.S.C. 102(e) as being anticipated by Shimomura et al (US pat 6,473,858).

Regarding claim 1, Shimomura et al teach a communication session management method for providing a transmission service having a plurality of service-levels, each service-level being associated with a separate quality-of-service (QOS), the method comprising:

preparing data for transmission at one of the plurality of service-levels by uniquely associating a service-level encryption key with said one of the plurality of service-levels;

encrypting said data with said service-level encryption key to form encrypted data uniquely associated with said one of the plurality of service-levels; and

transmitting said encrypted data uniquely associated with said one of the plurality of service-levels to users entitled to said one of the plurality of service levels (col.6 lines 31-44; col.8 lines 18-25; col.13 lines 31-37).

Regarding claim 2, Shimomura et al teach a method according to claim 1 and also comprising, the step of:

distributing to the users entitled to said one of the plurality of service levels decryption key derivation information for decrypting said encrypted data (col.6 lines 31-44; col.13 lines 31-37).

Regarding claim 4, Shimomura et al teach a method according to claim 1, and wherein said plurality of service levels are hierarchical according to a QOS hierarchy (col.7 lines 25-43).

Regarding claim 5, Shimomura et al teach a method according to claim 4 and wherein each one of the plurality of service-levels includes an indication of at least one of the following: a data transmission bandwidth (col.8 lines 18-25); a number of users

that may concurrently connect to the transmission service, a set of transmission applications served; a type of downgrade support to a service-level lower in the QOS hierarchy; a type of disconnect-on-idle operation; and a determination of a Web server to connect to.

Regarding claim 9, Shimomura et al teach a method according to claim I, and wherein the transmission service comprises at least one of the following: a unicast transmission; and a multicast transmission (col.4 lines 18-27).

Regarding claim 10, Shimomura et al teach a method according to claim I and wherein said users comprise at least one of the following: individual users; and users of an Intranet (col.17 lines 42-51).

Regarding claim 12, Shimomura et al teach a method according to claim I and also comprising the step of enabling, the users entitled to said one of the plurality of service-levels to decrypt said encrypted data according to service-level entitlements of the users (col.6 lines 4-15; col.6 lines 31-44; col.6 lines 54-61).

Regarding claim 13, Shimomura et al teach a method according to claim I and wherein said data comprises at least one of the following: any type of computerized data; video information; audio information; and multimedia (col.3 line 65 thru col.4 line 5).

Regarding claim 14, Shimomura et al teach a method according to claim 13 and wherein said data comprises on demand data (col.19 line 32 thru col.20 line 40).

Regarding claim 15, Shimomura et al teach a system at a head end for providing a transmission service having a plurality of service-levels, each service-level being associated with a separate quality -of-service (QOS), the system comprising:

a management unit for preparing data for transmission at one of the plurality of service-levels by uniquely associating a service-level encryption key with said one of the plurality of service-levels (col.3 line 60 thru col.4 line 5; col.6 lines 31-45; col.8 lines 18-25);

an encryptor operatively associated with said management unit and operative to encrypt said data with said service-level encryption key to form encrypted data uniquely associated with said one of the plurality of service-levels (col.6 lines 4-15; col.8 lines 18-25); and

a transmitter unit operatively associated with said management unit and said encryptor and operative to transmit said encrypted data uniquely associated with said one of the plurality of service-levels to users entitled to said one of the plurality of service-levels (col.6 lines 31-45).

Claims 16-18 are substantially equivalent to claims 13,14 and 5 respectively, therefore claims 16-18 are rejected because of similar rationale.

***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claim 3 rejected under 35 U.S.C. 103(a) as being unpatentable over Shimomura et al, and further in view of Maillard (US pat 6,393,562).

Regarding claim 3, Shimomura et al teach a method according to claim 2, but do not teach wherein said decryption key derivation information is comprised in an entitlement control message (ECM). Maillard teaches wherein said decryption key derivation information is comprised in an entitlement control message (ECM) (col.2 lines 42-57). It would have been obvious to one of ordinary skill in the art at the time of the invention to combine Shimomura et al's apparatus for broadcasting data with access control with Maillard's teaching of an entitlement control message in order to enable a user to decrypt a control word which would allow the user to decrypt the encrypted information (Maillard col.2 lines 49-57).

6. Claims 6,8 rejected under 35 U.S.C. 103(a) as being unpatentable over Shimomura et al, and further in view of Fijolek et al (US pat 6,553,568).

Regarding claim 6, Shimomura et al teach a method according to claim 1, but do not teach determining that communication load at said one of the plurality of service-levels exceeds a threshold; and downgrading to an available service-level that is lower in the QOS hierarchy than said one of the plurality of service-levels. Fijolek et al, however, teach determining that communication load at said one of the plurality of service-levels exceeds a threshold (col.26 lines 15-30); and downgrading to an available service-level that is lower in the QOS hierarchy than said one of the plurality of service-levels (col.27 lines 44-59; col.28 lines 22-41. It would have been obvious to one of ordinary skill in the art at the time of the invention to combine Shimomura et al's apparatus for broadcasting data with access control with Fijolek et al's teaching of downgrading to a lower service level in order to allow service level agreements to be used without adversely affecting performance or throughput (Fijolek col.28 lines 50-53).

Regarding claim 8, Shimomura et al and Fijolek et al teach a method according to claim 6, in addition Fijolek et al teach identifying the available service-level that is lower in the QOS hierarchy than said one of the plurality of service-levels (col.26 lines



15-30; col.27 lines 44-49). In addition, Shimomura et al teach encrypting said data with an encryption key uniquely associated with said available service-level that is lower in the QOS hierarchy than said one of the plurality of service-levels to form encrypted data uniquely associated with said service-level that is lower in the QOS hierarchy (col.6 lines 31-44; col.7 lines 25-43; col.8 lines 18-25); and transmitting, said encrypted data uniquely associated with said service level that is lower in the QOS hierarchy to users entitled to said one of the plurality of service-levels (col.6 lines 4-14).

***Allowable Subject Matter***

7. Claims 7 and 11 objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. The following is a statement of reasons for the indication of allowable subject matter:

With respect to claim 7, the cited prior art fails to specifically teach a method according to claim 6 and wherein said downgrading step is supported in one of the following modes: an automatic mode; and a mode in which downgrade is made upon confirmation of a user.

With respect to claim 11, the cited prior art fails to specifically teach a method according to claim 1 and wherein said encrypting step is performed in the PID layer.

***Conclusion***


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tremayne M. Norris whose telephone number is (703) 305-8045. The examiner can normally be reached on M-F 7:30AM-5:00PM alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gregory Morse can be reached on (703) 305-4789. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
Tremayne Norris

April 5, 2004

  
**MATTHEW SMITHERS**  
**PRIMARY EXAMINER**  
*Art Unit 2137*